

21. (Previously Added) The computer-readable medium according to claim 13, wherein the step of producing the report includes:

processing the log file from the end backward until the beginning.

22. (Currently Amended) The computer-readable medium according to claim 17, wherein the step of producing the report include:

processing the log file from the end backward until the beginning.

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### REMARKS

By this amendment, claims 1-22 are pending, in which claims 6 and 22 are amended. Entry of this amendment after final is appropriate since they only address various informalities and do not require further search or consideration.

The final Office Action mailed May 20, 2003 rejected claim 6 under 35 U.S.C. § 112 second paragraph, claims 1-18 as anticipated by *Arsenault* (US 5,408,650), and claims 19-22 as obvious under 35 U.S.C. § 103 based on *Arsenault*. The rejections are respectfully traversed as follows.

In response to the 35 U.S.C. 112 second paragraph rejection, claim 6 has been amended. In particular, the phrase "one or more of the recorded as" has been deleted. Claim 22 has also been amended to depend from claim 17 for proper antecedent basis.

**A. CLAIMS 5, 9, 14, AND 18 ARE NOT ANTICIPATED BECAUSE  
ARSENAULT FAILS TO DISCLOSE "MIGRATED OBJECTS."**

The rejection of claims 5, 9, 14, and 18 over *Arsenault* is respectfully traversed because the applied reference does not disclose the limitations of the claims. For example, claims 5, 9, 14, and 18 recite "the one or more marked tags indicate one or more respective addresses of

**migrated objects.”** *Arsenault* (per Abstract) is directed to a system that analyzes memory events, such as the allocation and deallocation of memory locations that are associated with the execution of an application program. The system includes a display which visually associates the dynamically allocated memory locations with program sub-routines in call stacks. (Col. 2:64-Col. 3:3) The system assigns to each of the memory locations a segment type that relates to a program subroutine that calls for it. (Abstract) *Arsenault* does not disclose any “migrated objects,” much less the “respective addresses of migrated objects” as required by claims 5, 9, 14, and 18. Specifically, *Arsenault* has no details about objects within the memory segments, much less whether the objects or memory segments are migrated.

The portions cited in the Office Action do not support the rejection. Col. 6:30-40 merely states that the call stack listing includes information that allows a user to trace the memory allocation commands associated with a selected memory segment through various program routines. The user is able to use the listing to determine if the routines are appropriately allocating and releasing memory locations, and also to determine if the routing is calling for properly sized memory blocks. (Col. 6:33-37) Col. 6:30-40, however, contains no disclosure of “migrated objects” as recited in claims 5, 9, 14, and 18.

Moreover, the Office Action’s rejection of claim 5 is inconsistent with claim 1. In claim 1, the Office Action reads the “marked tag” on a creation count, which is an ordinal number, not an address. (Col. 6:42) However, claim 5 recites “the one or more marked tags indicate one or more respective addresses of migrated objects,” which is not a creation count. Col. 4:24-27 cited in the Office Action has nothing to with the creation count.

**B. ARSENAULT DISCLOSES NEITHER LOGGING A PLURALITY OF STACK TRACES IN A LOG FILE NOR A LOG FILE COMPRISING A LIST OF STACK TRACES.**

Turning now to the rejection of all claims 1-22, Applicant respectfully traverses this rejection because *Arsenault* does not disclose the limitations recited in independent claims 1, 6, 10, and 15. For example, independent claims 1 and 10 recite “logging a **plurality of stack traces** and respective tags in a **log file**,” and independent claims 6 and 15 recite “accessing a **log file comprising a list of stack traces** and respective tags.” *Arsenault* does not disclose any “log file” and at best discloses a representation displayed to the user on the screen of a display device that includes “a listing 26 of the call-stack associated with a selected memory segment.” (Col. 6:2-4, note singular) The Office Action on page 8, states that “the listing of call stacks associated with selected memory segments is indistinguishable from the log file as claimed.” However, a display of a singular call stack is not a log file comprising a list of stack traces.

**C. ARSENAULT DOES NOT SUGGEST PROCESSING THE LOG FILE BACKWARDS AS RECITED IN CLAIMS 19-22.**

With respect to claims 19-22, Applicant respectfully traverses this rejection because *Arsenault* does not teach or otherwise suggest “processing the log file from the end backward until the beginning.” The Office Action, on page 7, correctly acknowledges that *Arsenault* does not expressly teach processing the log file from the end to the beginning to produce a report. Despite this deficiency of *Arsenault*, the Office Action contends that “one of ordinary skill in the art would have been motivated to process the newest entry to a sequentially-generated log file first to optimize memory usage and run-time efficiency, as taught by *Arsenault* (col. 6, li.37-40).” (Office Action, page 7, item 9)

As a preliminary matter, *Arsenault* merely displays a call-stack. There is no disclosure of a sequentially-generated log file, much less a data structure that can permit plural call stacks to be processed "from the end backwards until the beginning." Furthermore, the cited passage merely mentions that "information allows a user to optimize the **program** in terms of memory usage and run-time efficiency, as they relate to memory allocation." (Col. 6:37-40). In other words, the passage relates to using the *Arsenault* system to optimize the user's application program. Neither the passage nor the motivation seemingly derived from it relates to processing call-stack listings.

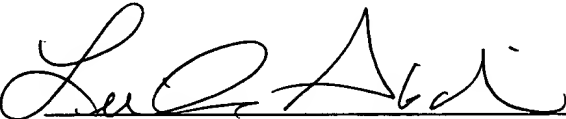
Dependent claims 2-4, 7-8, 11-13, and 16-17 are also allowable for at least the same reasons as their independent claims and are separately patentable on their own merits.

Therefore, the present application, as amended, overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at 703-425-8501 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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6/23/03  
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